Brazing high-pressure piping wi... copper-phosphorus brasses. O. V. Popov. *Vestnik ...thinostroeniya* 35, No. 7, 81–3(1955).—Joints as good ... better than those made with Ag solder can be made by ... a Cu 91.1–93% P 6.9–7.0% brass applied to bare Cu o... on brass and bronze when employing borax flux. Butt-we... specimens of Cu and brass showed a tensile strength of ... 8.6–12 kg./sq. mm., and 14.6–17.2 kg./sq. mm., resp., ... flanges welded to pipes showed a tensile strength of 15–1... kg./sq. mm., in both cases the failure occurring outside of ... the joint. Vibrating these pipes for 30 min. at 60 cycles ... with an amplitude of 2 mm. prior to testing did not affect t... results. On bending, butt-joined specimens of Cu fail ... in the junction zone and those of brass through the joint ... at an av. angle of 7.6 and 10.7° as compared with 59.0° ... Ag solder. The impact strength of notched brazed samp... varied from 1 to 2.8 kg./m./sq. cm. Thinner joints in... ease their strength, 0.012 mm. being recommended. J. D. Gat...

BOL'SHAKOV, Anatoliy Stepanovich; SARIN, Valeriy Ivanovich; SHVAYNSHTEYN, Boris Simonovich; [illegible]ONOMAREV, V.S., inzh., retsenzent; ZAZOVSKIY, D.G., inzh., retsenzent; MAKAROV, M.S., inzh., retsenzent; POPOV, G.V., inzh., retsenzent; KURBATOV, A.I., retsenzent; KITAYEVA, Z.A., inzh., retsenzent; SDOBNIKOV, Ye.F., retsenzent; KOVALEV, A.K., inzh., retsenzent; KESAREV, A.P., inzh., retsenzent; KISELEVA, N.P., inzh., red.; GROMOV, S.A., kand. tekhn. nauk, red.; SHCHERBACHEVICH, G.S., inzh., red.; USENKO, L.A., tekhn. red.

[Shunting diesel locomotives]Manevrovye teplovozy. Moskva, 1962. 383 p. (MIRA 15:6)
(Diesel locomotives)

PLATONOV, Ye.V.; POPOV, G.V.

"The D^a and D^b Diesel locomotives; design, maintenance and servicing." A.A.Poido. Reviewed by E.V.Platonov, G.V.Popov. Tekh.zhel.dor.7 no.6:31 Je'48. (MLRA 8:11)

(Diesel locomotives) (Poydo, A.A.)

POPOV, G.V., inzhener.

Using hydromechanical transmission in diesel locomotives. Tekh. zhel.dor. 15 no.1:28-29 Ja-F '56. (MLRA 9:5)
(Diesel locomotives--Transmission devices)

POPOV, G.V., inzh., red.; BOBROVA, Ye.N., tekhn.red.

[Hydraulic transmission in diesel locomotives; a collection of advanced articles] Gidravlicheskie peredachi teplovozov; sbornik perevodnykh statei. Moskva, Gos.transp. zhel-dor. izd-vo, 1957. 168 p. (MIRA 11:2)

(Diesel locomotives--Hydraulic driving)

POPOV, G.V., inzhener; GOL'DENTUL, B.A., inzhener.

Switching diesel locomotives with hydraulic transmission. Zhel dor. transp. 39 no.3:81-86 Mr '57. (MLRA 10:4)
(Diesel locomotives) (Hydraulic transmission)

BALABOLIN, Nikolay Aleksandrovich; FOFOV, G.V., red.

[Percussion-pulse-type nut runne.]Gaikovert udarno-impul'snogo tipa. Leningrad, 1964. 25 p.
(MIRA 17:9)

GURSKIY, P.A., doktor tekhn. nauk; POPOV, G.V., inzh.

Results of traction and heat engineering tests conducted on M61 diesel locomotives. Vest. TSNII MPS 17 no.2:19-23 Mr '58.
(Diesel locomotives—Testing) (MIRA 11:4)

SOV/122-58-12-9/32

AUTHORS: Popov, G.V., Candidate of Technical Sciences, and Simkin, Ye.L., Engineer

TITLE: Pneumatic Hoist PP-500 (Pnevmaticheskiy pod"yemnik PP-500)

PERIODICAL: Vestnik Mashinostroyeniya, 1958, 39 Nr 12, p 29

ABSTRACT: A pneumatic motor, situated inside the cable drum, drives the drum through a 2-stage planetary reduction gear with a transmission ratio of 200:1. The hoist is push-button controlled, has a load capacity of 500 kg and a maximum lift of 6 m. At 5 at. air pressure, the motor has an output of 0.73 hp at 2100 rpm, when lifting, and of 0.16 hp at 2700 rpm, when lowering. Lifting speeds are 2.7-5.4 m/min and lowering speeds are 3-3.4 m/min. The air consumption is 0.7 free m^3/min. The hoist measures 260x490x340 mm with a carriage for manual displacement along an I-beam and weighs 36 kg. There are 2 figures (including 1 photograph)

Card 1/1

POPOV, G.V., inzh.; YEREMEYEV, A.S., inzh.

New TGMI diesel switcher locomotive equipped with hydraulic transmission. Vest.TSNII MPS 18 no.1:15-19 F '59. (MIRA 12:3)
(Diesel locomotives)

POPOV, Gleb Vladimirovich; YEREMEYEV, Anatoliy Semenovich; BARKOVSKIY, Yu.B., inzh., red.; KHITROVA, N.A., tekhn.red.

[Hydraulic drive of diesel locomotives; principles of performance, design, and servicing] Gidravlicheskie peredachi teplovozov; printsip deistviia, ustroistvo i obsluzhivanie. Moskva, Vses. izdatel'sko-poligr.ob"edinenie M-va putei soobshcheniia, 1960. 74 p. (MIRA 14:1)

(Diesel locomotives--Hydraulic drive)

FUFRYANSKIY, N.A., doktor tekhn. nauk; GUREVICH, A.N., kand. tekhn. nauk; YEGUNOV, P.M., kand. tekhn. nauk; POPOV, G.V., kand. tekhn. nauk; STROMSKIY, P.P., kand. tekhn. nauk

Results of traction and heat engine tests of series TG102 diesel locomotives. Vest. TSNII MPS 25 no.1:16-23 '66.

(MIRA 19:2)

L 24242-66 EWT(m) DIAAP

ACC NR: AP6014616 SOURCE CODE: UR/0386/66/003/009/0382/0384

73

AUTHOR: Krizhanskiy, L. M.; Rogozev, B. I.; Popov, G. V. 71

ORG: none 19 B

TITLE: On the sign of the change of the charge radius of the Sn^{119} nucleus

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 3, no. 9, 1966, 382-384

TOPIC TAGS: Mossbauer effect, line shift, excited state, resonance line, barium titanate, tin, solid solution, paraelectricity, ferroelectricity

ABSTRACT: The authors used the nuclear-gamma-resonance spectroscopy method to investigate the behavior of $Ba(Ti, Fe)O_3$ solid solutions in the region of transition from the paraelectric into the ferroelectric state. From an analysis of the data on the temperature dependence of the chemical shift in the absorption spectra of such solid solution in the transition region, and from a comparison with similar data for $Ba(Ti, Fe)O_3$ they have also determined the sign of the change in the charge radius of Sn^{119}. The investigation was made with the apparatus described in a paper by one of the authors (Krizhanskiy, with Ye. M. Kruglov, ZhETF v. 43, 2050, 1962). The source was tin dioxide. The absorber temperature was varied from room temperature to -170C. A plot of the temperature dependence of the chemical shift in the spectra of $Ba(Ti_{0.8}, Sn_{0.2})O_3$ and $Ba(Ti_{0.7}, Sn_{0.3})O_3$ shows that at temperatures above -60C and -150C the corresponding solid solutions are in the paraelectric phase.

Card 1/2

At temperatures -60C and -150C a discontinuity sets in and jumps occur in the value of the chemical shift. These jumps cannot be attributed to the temperature shift and must be interpreted as the consequence of structure (phase) changes in the investigated sample. The change in the chemical shift can be due to distortion of the unit cell and the concomitant change of length and angles of the bonds in the ferroelectric phase transition. It is deduced that during the ferroelectric transition an increase of the electron density occurs also at the Sn^{119} nucleus. Since the transition from the paraelectric into the ferroelectric phase is accompanied by an increase in the chemical shift of the absorption line, the change in the charge radius is negative, in accord with other published findings. The authors thank V. A. Bokov for providing the samples and for useful discussions, and A. N. Pereveden-tsev for help with the work. Orig. art. has: 1 figure and 1 formula.

SUB CODE: 20/ SUBM DATE: 05Mar66/ ORIG REF: 003/ OTH REF: 005

POPOV, G.V., kand.tekhn.nauk

Mechanized tightening of axle bolts of the K-700 tractor. Mekh. i avtom.proizv. 19 no.2:19-20 F '65. (MIRA 18:3)

POPOV, G.V., kand.med. nauk (Arkhangel'sk, prosp. P.Vinogradova, d.160, kv. 2)

Osteolysis of the humeral heads on the basis of syringomyelia. Ortop. travm. protez. 24 no.7:57-58 Jl'63 (MIRA 17:2)

1. Iz kafedry gospital'noy khirurgii (zav. - prof. V.F.TSel') Arkhangel'skogo meditsinskogo instituta (rektor - dotsent I.G.Chernetsov).

DROBINSKIY, V.A., inzh.; YEGUNOV, P.M., kand. tekhn.nauk; VOLODIN, A.I., kand.tekhn.nauk, retsenzent; GROMOV, S.A., kand. tekhn.nauk, retsenzent; POPOV, G.V., kand. tekhn. nauk, retsenzent; BOL'SHAKOV, A.S., inzh., retsenzent; KATANOV, M.I., inzh., retsenzent; SIROTENKO, V.D., kand. tekhn. nauk, red.; USENKO, L.A., tekhn.red.

[How a diesel locomotive is built and operates] Kak ustroen i rabotaet teplovoz. Izd.2., perer. i dop. Moskov, Transzheldorizdat, 1963. 380 p. (MIRA 17:1)

POPOV, G.V., inzh.

Analyzing the centrifugal switch of the automatic system for the control of the speed rates of hydraulic transmissions. Trudy TSNII MPS no.254:4-72 '63. (MIRA 16:6)

(Diesel locomotives--Hydraulic drive)
(Automatic control)

POPOV, G.V. (Vologda)

Acquainting students with the science of colors. Fiz.v shkole 22 no.5:85-90 S-O '62. (MIRA 15:12)
(Physics--Study and teaching) (Colors)

POPOV, G.V., kand.med.nauk

Evaluation of the methods of treating chinga. Sov.med. 26 no.7: 98-100 Jl '62. (MIRA 15:11)

1. Iz kafedry obshchey khirurgii Arkhangel'skogo meditsinskogo instituta (zav. - zasluzhennyy deyatel' nauk RSFSR prof. G.A. Orlov).

(FINGERS--DISEASES)

POPOV, G. V., kand. med. nauk

Rare observation of Recklinghausen's disease. Vest. khir. no.4: 94 '62. (MIRA 15:4)

1. Iz gospital'noy khirurgicheskoy kliniki (i. o. zav. - prof. V. F. TSel') Arkhangel'skogo meditsinskogo instituta.

(NEUROFIBROMATOSIS)

POPOV, G.V., kand.med.nauk

Neurofibromatosis with a tumor of unusally large size. Vest. khir. no.6:101 '62. (MIRA 15:11)

1. Iz gospital'noy khirurgicheskoy kliniki (i.o. zav. - prof. V.F. TSel') Arkhangel'skogo meditsinskogo instituta.
(NEUROFIBROMATOSIS)

SEMICHASTNOV, Ivan Fedorovich, kand. tekhn. nauk; POPOV, G.V., inzh., retsenzent; GALANOVA, M.S., red. izd-va; TIKHANOV, A.Ya., tekhn. red.

[Hydraulic transmissions of diesel locomotives]Gidravlicheskie peredachi teplovozov. Izd.3., perer. Moskva, Mashgiz, 1961. 331 p. (MIRA 15:10)
(Diesel locomotives--Hydraulic drive)

ALFER'YEVA, M.Ya.; POPOV, G.V. (Arkhangel'sk)

Therapeutic effect of diplococcal serum in chinga. Klin.med. 39 no.3:66-68 Mr '61. (MIRA 14:3)

1. Iz kafedry obshchey khirurgii (zav. - prof. G.A. Orlov) Arkhangel'skogo meditsinskogo instituta (dir. - dotsent A.A. Kirov) i Instituta epidemiologii, mikrobiologii i gigiyeny (dir. M.Ya. Alfer'yeva).
(DIPLOCOCCUS) (FINGERS--DISEASES) (ARTHRITIS)

POPOV, G.V., inzh.

Designing the automatic changeover systems of the hydraulic transmission of diesel locomotives. Vest.TSNII MPS 20 no.8:20-25 '61.
(MIRA 15:1)

(Diesel locomotives) (Hydraulic transmission)

POPOV, G.V., kand.tekhn.nauk; LEYENSON, M.A., inzh.

Mechanization of torque tightening of threaded joints with a diameter from 24 to 42 cm. Vest. mash. 41 no.6:66-68 Je '61. (MIRA 14:6)

(Pneumatic tools)

POPOV, G.V., kand. tekhn. nauk; VOL'PE, L., red.

[Automation of technological processes; manual] Avtomatizatsiia tekhnologicheskikh protsessov; uchebnoe posobie. Leningrad, Severo-Zapadnyi zaochnyi politekhnicheskii in-t. No.1. 1961. 105 p. (MIRA 14:10)

(Automation) (Metal cutting)

POPOV, G.Ya. (Novosibirsk)

A plane contact problem in the theory of elasticity. Izv.AN SSSR.Otd. tekh.nauk.Mekh.i mashinostr. no.3:143-150 My-Je '61. (MIRA 14:6)

1. Novosibirskiy inzhenerno-stroitel'nyy institut.
(Elasticity)

POPOV, G. Ya. (Novosibirsk)

One way of solving the axially-symmetric contact problem of the theory of elasticity. Prikl. mat. i mekh. 25 no.1:76-85 Ja-F '61. (MIRA 14:6)

(Elasticity)

POPOV, G. Ya. (Odessa)

Some properties of classical polynomials and their application to contact problems. Prikl. mat. i mekh. 28 no.3:442-451 My-Je '64 (MIRA 17:7)

POPOV, G.Ya. (Odessa)

Contact problem of the theory of elasticity in the case of a circular contact area. Prikl. mat. i mekh. 26 no.1:152-164 Ja-F '62.
(MIRA 15:1)

(Elasticity)

POPOV, G.Ya. (Odessa)

Some properties of classical polynomials and their use in contact problems. Prikl. mat. i mekh. 27 no.5:821-832 S-O '63.
(MIRA 16:10)

POPOV, G.YA. (Odessa); ROSTOVTSEV, N.A. (Komsomolsk-on-Amur)

"Contact (mixed) problems of the theory of elasticity"

Report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow 29 Jan - 5 Feb 64.

32735
S/140/61/000/004/008/013
C111/C222

16.4520

AUTHOR: Popov, G. Ya.

TITLE: On an integral equation

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Matematika, no. 4, 1961, 99-103

TEXT: The author considers the integral equation

$$\frac{2^{\nu/2}}{\sqrt{\pi}\,\Gamma\left(\frac{1-\nu}{2}\right)} \int_0^\infty \left(\frac{\lambda}{|x-\xi|}\right)^{\nu/2} K_{\nu/2}(\lambda|x-\xi|)\varphi(\xi)d\xi = g(x), 0 \leq x \leq \infty, \quad (1)$$

where $K_{\nu/2}(z)$ -- Macdonald function, $0 < \nu \leq 1$, $g(x)$-- given function. If $g(x)$ is representable by Fourier integrals then the solution of (1) leads to the solution of the simpler equation

$$\int_0^\infty 1(|x-\xi|)\varphi_\zeta(\xi)\,d\xi = e^{i\zeta x}, \quad 0 \leq x < \infty, \ \mathrm{Im}\,\zeta \geqslant 0 \quad (6)$$

where $1(\alpha)$ denotes the kernel of (1). The solution of (6) is sought

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C111/C222

On an integral equation

where $\mu = \frac{1-\nu}{2}$.

It is pointed out that the problem of pressing of a semiinfinite die into an elastic halfspace with a variable modulus of elasticity $E = E_0 z^{\nu}$ leads to (1).

The author mentions V. J. Mossakovskiy, B. G. Korenev and V. A. Fok. There are 5 Soviet-bloc and 1 non-Soviet-bloc reference. The reference to the English-language publication reads as follows: E. Copson. On an integral equation arising in the theory of diffraction. Quart. J. of Math., v. 17, no. 65, 1946.

ASSOCIATION: Novosibirskiy inzhenerno-stroitel'nyy institut im. V. V. Kuybysheva(Novosibirsk Institute of Civil Engineers im. V. V. Kuybyshev)

SUBMITTED: March 7, 1959

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POPOV, G.Ya.

Solution of contact (mixed) problems in elasticity theory for a circular cylinder of infinite length. Izv. AN Arm. SSR. Ser. fiz.-mat. nauk 17 no.4:51-62 '64. (MIRA 17:11)

1. Odesskiy inzhenerno-stroitel'nyy institut.

L 40935-65 EWT(d)/EWT(l)/EEC(t) Pg-4/Pi-4/Pl-4 IJP(c) GG/LHB

ACCESSION NR: AP5007277 S/0057/65/035/003/0381/0389

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B

AUTHOR: Popov, G.Ya.

TITLE: On an approximate solution of the integral equation for the diffraction of electromagnetic waves by a slit of finite width

SOURCE: Zhurnal tekhnicheskoy fiziki, v.35, no.3, 1965, 381-389

TOPIC TAGS: diffraction pattern, integral equation, Bessel function, Laguerre polynomial

ABSTRACT: The author derives the following formula involving the modified Bessel function (Macdonald function) K and the Laguerre polynomials L:

$$\frac{1}{\sqrt{\pi}\,\Gamma(1/2-\mu)}\int_0^\infty \frac{K_\mu(|x-y|)\,L_m^{-1/2}(2y)\,dy}{|x-y|^\mu e^y y^{1/2-\mu}} =$$

$$= 2^{-1/2}(m!)^{-1}\Gamma(1/2+\mu+m)\,e^{-x}L_m^{-1/2}(2x), \quad x\geqslant 0;\ -\frac{1}{2}<\operatorname{Re}\mu<\frac{1}{2}.$$

With the aid of this formula and by employing methods of G.A.Grinberg (DAN SSSR,128,

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L 40935-65

ACCESSION NR: AP5007277

No.3, 1959; 129, No.2, 1959) the author obtains the solution of the integral equation

$$\int_0^a H_0^{(2)}(k|x-y|)\varphi(y)\,dy = Ae^{-ikx} + Be^{ikx} \quad (A, B = \text{const}),$$

which arises in the theory of diffraction by a slit of finite width ($H_0^{(2)}$ is a Hankel function), in the form of an infinite series of Laguerre polynomials. This series converges the more rapidly, the greater the ratio of the slit width to the wavelength. Orig.art.has: 64 formulas.

ASSOCIATION: Odesskiy inzhenerno-stroitel'nyy institut (Odessa Construction Engineering Institute)

SUBMITTED: 15Apr64 ENCL: 00 SUB CODE: MA,GP

NR REF SOV: 007 OTHER: 000

Card 2/2

3458

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C111/C222

24 4200

AUTHOR: Popov, G.Ya.

TITLE: The pressing of a semi-infinite punch into an elastic half-space

PERIODICAL: Referativnyy zhurnal. Matematika no. 1, 1962, 55, abstract 1 B 259.("Teor. i prikl. matem.,"vyp I. L'vov. L'vovsk un-t, 1958, 173-183)

TEXT: Considered is a semi-infinite punch $x > 0$ which is pressed into the half-space $z > 0$. It is assumed that the base of the punch has the form

$$w(x,y) = A\cos\lambda y e^{-i\omega x}; \quad -\infty < y < \infty; \quad 0 < x < \infty \quad (1)$$

this case it is natural to expect the pressure to have the form

$$\varphi(x)\cos\lambda y \frac{\pi E}{1-\nu^2} \quad (2)$$

equation of the first kind

The pressing of a semi-infinite ...

$$\frac{1}{1 - \int_0^\infty K(u)e^{iwu}\,du} = \psi_1(w)\,\psi_1(-w);\ -\infty < w < \infty \ .$$

To solve (3), the author first uses the V.A. Fok method formally and substantiates it later for (3). It is shown that in this case the Fok method is applicable under somewhat simpler assumptions. The function $\varphi(x)$ determined from (3) in this way has the form

$$\varphi(x) = \frac{A\sqrt{\omega^2 + \lambda^2}}{\pi}\left\{\frac{e^{-x\lambda}}{\sqrt{\kappa x(\lambda - \omega_i)}} + e^{-i\omega x}\,\phi\left(\sqrt{x(\lambda - \omega_i)}\right)\right\}$$

where ϕ is the probability integral. With this the problem for a punch with the base (1) is solved. It is suggested that one can get the solution in general cases by supposition. In the article the corresponding plane problem is also solved using a limit process. The reviewer mentions that the problem presented in the abstracted paper is being

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POPOV, G.Ya.

One approximation method for solving certain plain contact problems in the theory of elasticity. Izv. AN Arm. SSR, Ser. fiz.-mat. nauk 14 no.3:81-96 '61. (MIRA 14:8)

1. Novosibirskiy inzhenerno-stroitel'nyy institut imeni V.V. Kuybysheva.
(Boundary value problems) (Elasticity)

32696
S/040/62/026/001/017/023
D237/D304

10.7100 also 3008

AUTHOR: Popov, G.Ya.

TITLE: Contact problem of the theory of elasticity, with a spherical region of contact

PERIODICAL: Akademiya nauk SSSR. Otdeleniye tekhnicheskikh nauk. Prikladnaya matematika i mekhanika, v. 26, no. 1, 1962, 152-164

TEXT: If an elastic body penetrates into an elastic medium, then for an axially symmetrical case, displacement w(r) of the surface point of the medium where $r = \sqrt{x^2 + y^2}$ = distance of the point in question from the point of application of unit force is given by the author's earlier work (Ref.7: PMM, 1961, v. 25, no. 1) as Eq. (1.1)

$$w(r) = \frac{\theta l}{2\pi} \int_0^\infty G(ht) J_0(rt)\,dt$$

where $J_0(x)$ = Bessel function, θ and h = some parameters of the medium and $G(\infty) = 1$. By (Ref. 7:Op.cit.) and the author's (Ref.8: Izv. vuzov.

Card 1/3

Contact problem of the theory ...

Str-vo i arkhitektura, 1959, no. 11) an integral equation for the contact stress $p(r)$ is obtained in dimensionless variables and its approximate solution is obtained by a series expansion of Bessel functions. After another change of variables a solution is proposed to be of the type of a series in Legendre polynomials, and utilizing the properties and orthogonality of Legendre polynomials, the author shows that the proposed series is a solution, and gives the method for determining the coefficients. The solution obtained is in the form of an infinite series, and the author constructs next a finite solution of the integral equation. Two particular examples are worked out. Analogical treatment is given to the case when axial symmetry is absent and consequently Eq.(5.1) $G(x) = x^{\nu}\,[1 + o(1)]$ for $x \to \infty$ $(-1 < \nu < \frac{1}{2})$. The author examines in greater detail the case when a flat stamp penetrates an elastic medium under the force applied eccentrically (eccentricity e). The formula for e_{max} which would not result in separation of the planes of contact is given, and some numerical results illustrating the formulas derived are tabulated. In conclusion, the author remarks that the above methods can

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Contact problem of the theory ...

be applied to the case of contact of thin circular plate with an arbitrary medium. There are 2 figures and 13 Soviet-bloc references.

SUBMITTED: August 22, 1961

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Card 3/3

POPOV, G.Ya.

One integral equation. Izv. vys. ucheb. zav.; mat. no.4:99-103 '61. (MIRA 14:7)

1. Novosibirskiy inzhenerno-stroitel'nyy institut imeni V.V. Kuybysheva.

(Integral equations)

POPOV, G.Ya. (Novosibirsk)

Deflection of a semi-infinite plate lying on a linearly deformable base. Prikl. mat. i mekh. 25 no.2:342-355 Mr-Ap '61.
(MIRA 14:5)

(Surfaces, Deformation of) (Integral equations)
(Transformations (Mathematics))

POPOV, G.Ya. [Popov, H.IA] (Novosibirsk)

Bending of infinitely long beams weakened by hinges and lying on an elastic support. Prykl. mekh. 5 no.4:411-420 '59.
(MIRA 13:3)

1.Novosibirskiy inzhenerno-stroitel'nyy institut.
(Girders)

POPOV, G.Ya.

An approximate method for solving an integral equation describing the diffraction of electromagnetic waves on a strip of finite width. Zhur. tekh. fiz. 35 no.3:381-389 Mr '65. (MIRA 18:6)

1. Odesskiy inzhenerno- stroitel'nyy institut.

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16.7300

AUTHOR: Popov, G. Ya. (Novosibirsk)

TITLE: A method of solving an axisymmetric contact problem of the theory of elasticity

PERIODICAL: Prikladnaya matematika i mekhanika, v. 25, no. 1, 1961, 76-85

TEXT: B. G. Korenev, in an earlier paper, reduced the problem of the pressing of a circular stamp into an elastic fundament of the general type to pair integral equations for an auxiliary function. In the present paper, this problem is now reduced to a Fredholm integral equation of the first kind for the contact stress. The results of the present paper are based upon a formula of the sinking-in $w(r)$ of the surface points of the elastic fundament under a perpendicularly acting stress concentrated on the circumferential line. This formula may easily be derived for a fundament of a very general type. Here only the relation

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A method of solving an axisymmetric ...

$w_o(r) = \int_o^\infty f_o(t) J_o(rt)dt$ (1.1) must be satisfied. Here $J_o(x)$ is the Bessel function of the first kind, $w_o(r)$ - the sinking of a surface point of the fundament at a distance $r = \sqrt{x^2 + y^2}$ from the point of application of the unit force. For an elastic homogeneous semispace, $f_o(t) = (1 - \mu_o^2)(\pi E)^{-1}$, e.g. holds. For a semispace with an elasticity modulus corresponding to the exponential law $E = E_\nu z^\nu$,

$f_o(t) = \frac{\Gamma(1/2 - \nu/2)}{\pi D_\nu \Gamma(1/2 + \nu/2)} \left(\frac{t}{2}\right)^\nu \left(D_\nu = \frac{\alpha_o}{E_\nu}\right)$ (1.2) holds. G. K. Kleyn set up tables for the coefficient α_o. For an elastic layer ($0 \leqslant z \leqslant h$) (1.1) also holds. It holds also for an elasticity modulus which is variable according to the law $E = E_o \exp(\gamma z)$. With the stress $p(x,y)$,

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A method of solving an axisymmetric ... S/040/61/025/001/009/022
B125/B204

For a circular region in the case of homogeneous semispace, and also for a semispace with (1.2) holding, the contact problem may be reduced to solving an integral equation of the Wiener-Hopf type. Two similar elastic semispace-like bodies with different elastic properties are supposed to be in touch with each other. It then holds according to I. Ya. Shtayerman that $\alpha = w_1(r) + z_1(r) + z_2(r) - w_2(r)$ (2.1). Here α is the approach of the elastic bodies during compression; $z = z_1(r)$ and $z = -z_2(r)$ are the equations of the surfaces bounding the compressed bodies. $w_1(r)$ and $w_2(r)$ are the vertical elastic displacements of the points in contact. By means of

$w_{1,2} = \pm c_{1,2} \int_0^a k_\nu(r/\rho)\rho^{-\nu} p(\rho)d\rho$ there follows from (2.1) the integral equation $\int_0^a k_\nu(r/\rho)\rho^{-\nu} p(\rho)d\rho = f(r)$, $0 \leqslant r \leqslant a$ (2.4) with

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holds. Herefrom there follows after some steps (4.2), (4.3) and, with r = a (4.6) Откуда, используя полученные формулы (3.18) и (3.19), найдем

$$p(r) = \frac{2^{1-\nu}\Gamma^{-1}(1/2+1/2\nu)}{c_1+c_2}\left[\frac{\alpha}{\Gamma(1/2+1/2\nu)} - A\frac{\Gamma(1+1/2\sigma)\,a^\sigma}{\Gamma(1/2+1/2\nu+1/2\sigma)}\right](a^2-r^2)^{1/2\nu-1/2}+$$

$$+\frac{A}{c_1+c_2}\frac{2^{1-\nu}\Gamma(1+1/2\sigma)\,\sigma}{\Gamma(1/2+1/2\nu)\,\Gamma(1/2+1/2\nu+1/2\sigma)}\int_r^a (t^2-r^2)^{1/2\nu-1/2}t^{\sigma-1}dt \qquad (4.2)$$

$$P = \frac{\pi 2^{2-\nu}a^{1+\nu}}{(c_1+c_2)\,\Gamma(1/2+1/2\nu)}\left[\frac{\alpha}{(1+\nu)\,\Gamma(1/2+1/2\nu)} - \frac{A\Gamma(1+\sigma/2)\,a^\sigma}{(1+\nu+\sigma)\,\Gamma(1/2+1/2\nu+1/2\sigma)}\right] \qquad (4.3)$$

$$p(r) = \frac{P(1+\nu)(1+\nu+\sigma)}{2\pi a^2}\int_{r/a}^1 \left(t^2-\frac{r^2}{a^2}\right)^{1/2\nu-1/2}t^{\sigma-1}ds \qquad (4.6)$$

Finally, also some special cases are investigated, using a formula by

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B125/B204

A method of solving an axisymmetric ...

V. I. Mossakovskiy. Furthermore, a second method of solving the integral equation of the axially symmetric contact problem is given. In this connection one obtains (4.14).

$$p(r) = \frac{2^{1-\nu}}{\Gamma^2\left(\frac{1+\nu}{2}\right)}\left[\frac{\gamma}{(a^2-r^2)^{1/2-1/2\nu}} - \int_r^a \frac{u^{-\nu}\,du}{(a^2-r^2)^{1/2-1/2\nu}} \int_0^u \frac{f'(s)+sf''(s)}{(u^2-s^2)^{1/2-1/2\nu}}\left(1+\nu\frac{s^2}{u^2}\right)ds\right] \qquad (4.14$$

$$\gamma = f(0) + a^{1-\nu}\int_0^a \frac{f'(s)}{(a^2-s^2)^{1/2-1/2\nu}}\left(1+\nu\frac{s^2}{a^2}\right)ds$$

This method permits an exact solution of the axially symmetric contact problem in consideration of the surface structure of the bodies in contact with one another. There are 15 Soviet-bloc references.

ASSOCIATION: Novosibirskiy inzhenerno-stroitel'nyy institut
(Novosibirsk Institute of Civil Engineering)

SUBMITTED: November 14, 1960

Card 7/7

[illegible], O.Ye., assistant

Bending of semi-infinite plates on an elastic foundation. Prikl. mat. i mekh. 26 no.1:179-186 '62. (MIRA 15:2)

1. Rekomendovana kafedroy stroitel'noy mekhaniki Odesskogo inzhenerno-stroitel'nogo instituta.
(Elastic plates and shells)

AUTHOR: Popov, G.Ya.

SOV/140-58-3-24/34

TITLE: Correction and Completion of the Paper "On Conjugate Integro-Differential Equations ..." (Ispravleniye i dopolneniye k rabote "O sparennykh integro-differentsial'nykh uravneniyakh.."

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy Ministerstva vysshego obrazovaniya SSSR,Matematika, 1958,Nr 3, pp 187 - 190 (USSR)

ABSTRACT: In [Ref 1] the author considered the bending of an infinite plate, the rigidity of which is piecewise constant. By error he calculated the case of a throughout constant rigidity which gave already well-known results. In the present paper this error is eliminated.
There are 2 Soviet references.

ASSOCIATION: Odesskiy inzhenerno-stroitel'nyy institut (Odessa Institute for Civil Engineers)

SUBMITTED: March 25, 1958

Card 1/1

24 (0)

AUTHOR: Popov, G. Ya.

SOV/20-126-3-21/69

TITLE: The Bending-through of a Semi-infinite Plate in Connection With an Elastic Support (Izgib polubeskonechnoy plity na kombinirovannom uprugom osnovanii)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 3, pp 534-537 (USSR)

ABSTRACT: In the present paper an exact solution of the problem is carried out. For this purpose, an elastic semispace, upon which the plate rests and which serves as an elastic support, is introduced. This elastic support curves like a system of individual upright springs. In the first part, the formula for bending-through of the plate bounded on one side with given rigidity under a periodic load is given, and formula (6) is developed for the tension below the plate by taking the biharmonic equation into account. The results obtained are further investigated, and in the second part of the paper general formulas are deduced by using Cauchy's integral for the tension below the plate and for its through-bend. There are 5 Soviet references.

Card 1/2

POPOV, G.Ya.

Correction and supplement to the work "Paired integrodifferential equations..." Izv. vys. ucheb. zav.; mat. no.3:187-190 '58.
(MIRA 11:6)

1. Odesskiy inzhenerno-stroitel'nyy institut.
(Integral equations)
(Elastic plates and shells)

POPOV, G.Ya.

Coupled integrodifferential equations for the bending of an unbounded plate resting on an elastic semispace and having a piece-wise constant rigidity. Izv.vys.ucheb.zav.; mat. no.1: 195-209 '57. (MIRA 12:10)

1. Odesskiy inzhenerno-stroitel'nyy institut.
(Integral equations) (Elastic plates and shells)

POPOV, G.Ya, Cand Tech Sci—(diss) "Precise solution of certain problems of the bending of plates in an elastic semispace." Odessa, 1958. 11 pp (Min of Higher Education UkSSR. Odessa Construction Engineering Inst), 115 copies. Bibliography at end of text (10 titles) (KL,25-58, 114)

report presented at the 1st All-Union Congress of Theoretical and Applied Mechanics, Moscow, 27 Jan - 3 Feb '60.

201. N. Ia. Mikhailov (Moscow): An experimental study of the load carrying capacity of thin-walled nickel tubes subjected to various combinations of tension, torsion, and internal pressure.

202. S. G. Mikhlin (Leningrad): Variational methods in the theory of elasticity.

203. A. A. Movchan (Moscow): The stability of motions of solids — Lagrange's theorem for solids and its inversion.

204. A. A. Movchan (Moscow): Axisymmetric hypersonic flutter of a circular cylindrical shell.

205. N. F. Murzakov (Leningrad): On the uniqueness of the solution of the problem of large deflections of a circular plate under rotationally symmetric loading.

206. G. M. Mukhadze (Tbilisi): The determination of the deformation of trusses without diagonals.

207. Kh. M. Mushtari, I. G. Teregulov (Kazan): A theory of moderately thick plates and shells.

208. A. G. Nazarov (Erevan): Some problems in the theory of seismic stability.

209. U. K. Nigul (Tallin): Vibrations of an elastic circular cylindrical shell under concentrated impact loading.

210. U. K. Nigul (Tallin): More accurate equations of motion for circular cylindrical shells.

211. V. A. Nikitin (Leningrad): Approximate treatment of cylindrical shells under concentrated loads.

212. S. N. Nikiforov (Moscow): Redistribution of reactions at the edge of a simply supported rectangular plate under gradually increasing loading.

213. W. Nowacki (Warsaw): Some dynamical problems of thermoelasticity.

214. S. K. Noskov (Moscow): Investigation of the viscous behavior of elastic, visco-plastic materials in vibrations.

215. Ia. L. Nudelman, I. A. Slezinger (Odessa): Problems of the non-linear theory of elasticity.

216. I. P. Obraztsov (Moscow): An application of [illegible] variational method to the design of [illegible] structures.

217. K. I. Ogurtsov (Leningrad): Complete computation of a wave field in homogeneous elastic media with parallel plane boundaries.

218. H. Okubo (Nagoya): The method of electroplating and its applications.

219. W. Olszak (Warsaw): Two-dimensional problems in the theory of plasticity of non-homogeneous and anisotropic media.

220. Y. G. Osipov (Moscow): The state of stress in a deformed curved bar.

221. V. Ia. Pavilainen (Leningrad): A membrane theory for a toroidal shell.

222. V. P. Pavlov (Moscow): Creep, elastic properties and anisotropy of plastic lubricants.

223. O. V. Palchinskii (Kharkov): A practical method of designing reinforced concrete structures with reference to creep.

224. Ia. G. Panovko (Riga): The problem of structural damping.

225. P. I. Perlin (Moscow): An approximate method for solving elastic-plastic problems.

226. P. I. Perlin, L. A. Shofman (Moscow): Application of the theory of rigid, plastic solids to problems of metal forming.

227. G. N. Polozhii (Kiev): On the axisymmetric problems of the theory of elasticity.

228. D. M. Polshin (Moscow): A method for studying the plane field of relative volume strains in soils.

229. G. Ia. Popov (Novosibirsk): The application of some new methods of the theory of integral equations to the solution of contact problems of the theory of elasticity.

230. V. A. Postnov (Leningrad): Free and forced vibrations of frames taking into account shear deformations and energy dissipation.

231. V. N. Poturaev (Dnepropetrovsk): Investigation and calculation of internal friction in elastic members of vibrating machines.

232. W. Prager (Providence): An elementary discussion of definitions of stress rate.

233. N. I. Prigorovskii (Moscow): Photoelastic investigation of stresses in three-dimensional layered models.

POPOV, G.Ya. (Novosibirsk)

One integrodifferential equation [with summary in English]. Ukr.mat. zhur. 12 no.1:46-54 '60. (MIRA 13:10)
(Integral equations)

L 22583-65 EWT(m) JAJ/RM S/0022/64/017/004/0051/0062

ACCESSION NR: AP5005022

B

AUTHOR: Popov, G. Ya.

TITLE: Solution of contact (mixed) problems of the theory of elasticity for an infinitely long round cylinder

SOURCE: AN ArmSSR. Izvestiya. Seriya fiziko-matematicheskikh nauk, v. 17, no. 4, 1964, 51-62

TOPIC TAGS: cylindric shell structure, solid mechanical property

Abstract: B. I. KOGAN (Prikladnaya Matematika i Mekhanika, 20, No 2, 1956) investigated the axially symmetric problem concerning the stressed state of an infinitely round cylinder compressed in a semi-infinite ring, the radius of the internal cavity of which is less than the radius of the compressed cylinder by one magnitude of stress. B. I. KOGAN and A. F. KHRUSTALEV (Izvestiya AN SSSR, OTN, Mekhanika i Mashinostroyeniye, No 5, 1960) generalized the foregoing problem for the case when a semi-infinite thin casing is compressed on an infinite shaft. The method used by the authors is similar to that used in the cited work by KOGAN and provides a solution for the case where the load is applied only to the end of the

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casing and is distributed along the cylinder surface. In an article by the present author (Primeneniye Nekotorykh Novykh Metodov Teorii Integral'nykh Uravneniy K Kontaktnym Zadacham Teorii Uprugosti. I Vsesoyuznyy S"yezd po Teoret. I Prikl. Mekhan., Tezisy Dokladov, M., 1960), which was reported (but not published) at the I All-Union Conference on Mechanics earlier than the article by KOGAN and KHRUSTALEV, a similar contact problem was solved. In the present article, the method reported at the All-Union Conference on Mechanics is applied to the aforementioned problems. This method has several advantages over the method used by KOGAN and KHRUSTALEV. In particular, a solution is obtained for the problem of the compression of a semi-infinite casing loaded at an arbitrary spot. With this method it is possible to solve other hybrid problems for an infinite cylinder. It may also be used for problems where axial symmetry does not occur. Orig. art. has: 40 formulas.

ASSOCIATION: Odesskiy inzhenerno-stroitel'nyy institut (Odessa Structural Engineering Institute)

SUBMITTED: 18Sep63 ENCL: 00 SUB CODE: AS

NO REF SOV: 009 OTHER: 000 JPRS

Card 2/2

POPOV, G.Ya. (Odessa)

A plane contact problem for an elastic semistrip. Izv. AN SSSR.Mekh. no.4:153-157 Jl-Ag '65.

(MIRA 18:12)

POPOV, G.Ye. (Serpukhov)

Lack of periodic solutions taking the value $x = 0$ in a class of differential equations of the type $\ddot{x} + x = F(x, \dot{x})$.
Izv. vys. ucheb. zav.; mat. no.3:120-122 '64.
(MIRA 17:12)

SNESAREVSKIY, Aleksandr Petrovich; OGURTSOV, V.V., retsenzent; POPOV, G.Ye., retsenzent; RODIONOV, I.I., retsenzent; SIBAROV, A.D., retsenzent

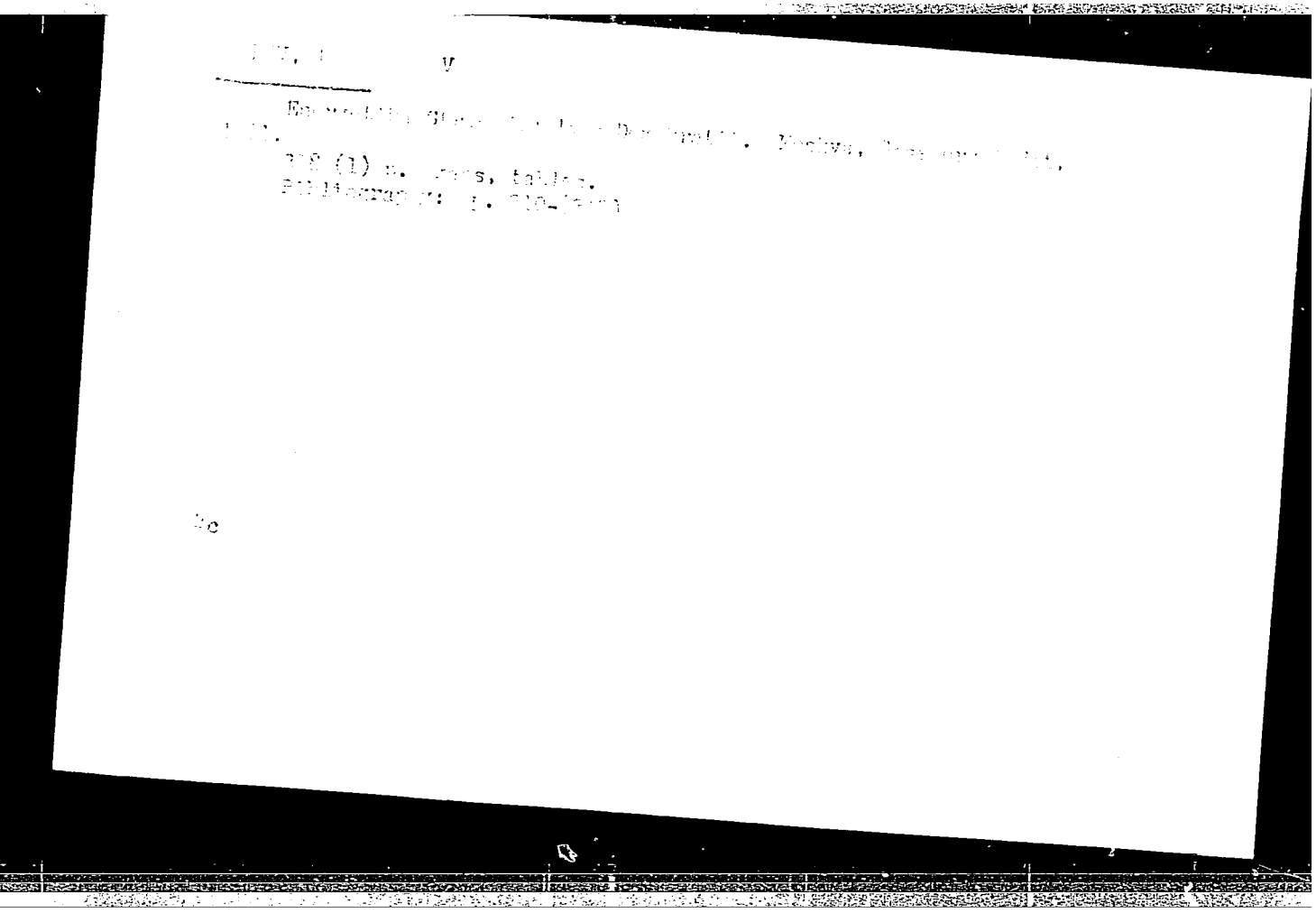
[Experience in the reorganization of accounting work in mines] Opyt perestroiki bukhgalterskoi raboty na shakhtakh. Moskva, Nedra, 1964. 130 p. (MIRA 18:6)

BAGRIKOV, I.N., inzh.; POPOV, G. Ye., dotsent; UGOLIK, N.F., kand.tekhn.nauk, dotsent.

"Organization and planning of machinery plants" by E. G. Liberman Reviewed by I. N. Bagrikov, G.E. Popov, N. F. Ugolik. Vest. mash. 41 no.6:83-84 Je '61. (MIRA 14:6)

1. Ivanovskiy energeticheskiy institut im. V. I. Lenina (for Bagrikov). 2. Odesskiy politekhnicheskiy institut (for Popov). 3. Odesskiy tekhnologicheskiy institut im. I. V. Stalina (for Ugolik).

(Machinery industry)
(Liberman, E. G.)



POPOV, I.V.

Importance of the study of kinetic phenomena. Vest.Mosk.un.
Ser. 4: Geol. 16 no.2:3-7 Mr-Ap '61.
(Engineering geology) (MIRA 14:4)

POPOV, I.

The LM-57 streetcar. Zhil.-kom. khoz. 8 no. 6:20-22 '58.
(MIRA 11:7)

1. Glavnyy inzhener Tramvayno-trolleybusnogo upravleniya Lengorispolkoma.
(Leningrad--Streetcars)

TSANEV, B.; POPOV, I.

Functional minimum in the investigation of pulmonary ventilation. Suvrem. med. Sofia 9 no.1:91-96 1958.

1. Iz Sanatoriuma Iskrets (Gl. lekar: S. Simeonov).
(RESPIRATION, physiology,
ventilation, funct. minimum (Bul))

TOMESKU, I.; POPOV, I [translator]

Trade cooperative societies in Rumania. Prom. koop. 13 no.4:36-37 Ap '59. (MIRA 12:6)

1.Nachal'nik otdela organizatsionnoy i kul'turno-massovoy raboty TSentral'nik soyuza remeslennykh kooperativov Rumynskoy Narodnoy Respubliki (for Tomesku).
(Rumania--Cooperative societies)

POPOV, I.; AFANAS'IEV, V.; SUKHOVA, G.

Using synthetic washing agents in laundries. Zhil.-kom.khoz. 8 no.10:2-4 '58. (MIRA 11:11)
(Washing powders)

POPOV, I.; PESHEV, M.

Preoperative and postoperative hemorrhage in tonsillectomy; its therapy and management. Khirurgiia, Sofia 11 no.8:736-740 1958.

1. Vidinska gradska bolnitsa boian chonov G. Lekar: L. Stoianov.
(TONSILLECTOMY, hemorrh.
ther. (Bul))

POPOV, I.

Instrument for vascular ligation following tonsillectomy. Khirurgiia, Sofia 11 no.8:762 1958.
(TONSILLECTOMY, appar. & instruments,
instrument for vasc. ligation (Bul))

BARDIN, I.; BELAN, R.; BEKHTIN, N.; BOYKO, V.; BORISOV, A.; BYCHKOV, V.; VASILENKO, S.; VINOGRADOV, V.; VISHNEVSKIY, A.; VODNEV, G.; DVORIN, S.; DZHAPARIDZE, Ye.; DIDENKO, V.; D'YAKONOV, N.; ZHURAVLEV, S.; ZAKHAROV, A.; IVANOV, I.; KIRSANOV, M.; KOLYADA, G.; KOROBOV, P.; LESKOV, A.; LUKICH, L.; LYUBIMOV, A.; MELESHKIN, S.; MYRTSYMOV, A.; PERTSEV, M.; PETRUSHA, F.; PITERSKIY, A.; POPOV, I.; RAYZER, D.; ROZHKOV, A.; SAPOZHNIKOV, L.; SEDOY, P.; SOKOLOV, P.; TEVOSYAN, I.; TIKHONOV, N.; TISHCHENKO, S.; FILIPPOV, B.; FOMENKO, N.; SHELKOV, A.; SHEREMET'YEV, A.

Fedor Aleksandrovich Merkulov. Koks i khim.no.7:62 '56. (MLRA 9:12)
(Merkulov, Fedor Aleksandrovich, 1900-1956)

POPOV, I.

SCIENCE

Periodical: IZVESTIIA. BULLETIN Vol. 8, 1957

POPOV,I., and others. Accelerating the aging process of Dimiat young wine by biological method. p. 207.

Monthly List of East European Accessions (EEAI), IC. Vol. 8, no. 2 February 1959, Unclass.

POPOV, I.

SCIENCE

Periodical: IZVESTIIA. BULLETIN Vol. 8, 1957

POPOV, I. Investigating the movement of Co^{60} in wheat grain by steeping it in a solution of Co^{60}. p. 105.

Monthly List of East European Accessions (EEAI), IC. Vol. 8, no. 2
February 1959, Unclass.

MONDESHKI, M.,dots.; RADANOV, R.; POPOV, Iv.; SLAVOV, G.; DOBREV, P.

Results following application of artificial pneumothorax at the tuberculous clinic in Sofia. Suvrem.med., Sofia. 5 no.12:34-46 1954.

1. Iz Klinikata po ftiziatriia pri Bissh. med. inst. V. Chervenkov - Sofia (direktor: dots. M. Mondeshki)
(PNEUMOTHORAX, ARTIFICIAL, results)

AUTHOR: Popov, I. SOV/49-58-7-16/16

TITLE: Inspection of the Seismic Stations of the Caucasus in 1957 (Inspektirovaniye seysmicheskikh stantsiy Kavkaza v 1957 g.)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Geofizicheskaya, No 7. 1958, pp 934 - 936 (USSR)

ABSTRACT: The inspection was carried out by the members of the seismological department of the Ac.Sc.USSR in the spring and autumn of 1957. The following 20 stations were visited: Sochi, Krasnaya Polyana and Makhachkala in North Caucasus, Baku, Shemakha, Kirovabad, Lenkoran' and Nakhichevan in Azerbaydzhanskaya SSR, Yerevan, Goris, Leninakan and Stepanavan in Armenian SSR, Gori, Zugdidi, Gegechkori, Borzhomi, Bakuriani, Abastumani, Akhalkalaki and Bogdanovka in Georgian SSR. Seven of the above stations belonged to the Institute of Geophysics, Ac.Sc. Georgian SSR, two were administered by the Astro-physical Observatory of the Ac.Sc. Armenian SSR, and the rest were under the Institute of Terrestrial Physics of the Ac.Sc. USSR.
The stations were equipped with various apparatus. The

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seismographs of SK type were found in Makhachkala, Sochi, Shemakha, Kirovabad, Nakhichevan, Goris, and Yerevan. Tbilisi also had a complete Galitzin seismograph. Baku had two horizontal Galitzin seismographs and a vertical one of SK type. Most of the Georgian stations had the regional seismographs of SH type. Goris had a complete set of SK type seismographs with frequency characteristics adapted for the regional observations. A regional low-frequency seismograph of the Nikiforov type with a straight, optical registration was found in Lenkoran. Leninakan had two horizontal apparata of SI type with optical registration. Some stations had a supplementary seismograph: Goris and Kirovabad each had a regional-type SH seismograph, Zugdidi and Bakuriani each had a mechanical seismograph of Bosh type and one of SLP type was found in Yerevan.

The equipment of the stations was considered as being below the modern requirements of seismic observations of the Caucasus region. The negligence of the periodical check of instruments was found to be general. Stations

at Stepanavan, Zugdidi and Borzhomi did not have their instruments checked for four years. Some stations exchanged their equipment without comparing the new apparatus with the previous ones.
It was noticed that most of the stations had inadequate exchange of the scientific data with headquarters. As an example, the collaboration between the laboratories of the Institut fiziki i matematiki An AzerbSSR (Institute of Physics and Mathematics of the Ac.Sc.Azerb.SSR) and their station at Bauk virtually did not exist, nor did the stations at Leninakan and Stepanavan, included in the network of the Armenian astro-physical observatory, have suitable apparatus nor enough personnel for their task.
One of the responsibilities of the inspection was to remedy some of the inefficiencies. The calibration of instruments was performed at 15 stations; the radio transmitters of 11 stations were checked; a relay control device was constructed for the registering apparatus at 12 stations. In many cases, assistance was given to the personnel in their scientific problems and a great deal was done to meet their needs in various matters.

Inspection of the Seismic Stations of the Caucasus in 1957.

The following suggestions were made after completing the inspection:
1) the seismological departments of the Ac.Sc.USSR should prepare a detailed plan of the seismic network of the Caucasus region;
2) the local difficulties and their character in relation to the general efficiency of seismic observations with the best type of apparatus required should be assessed as soon as possible;
3) relationship between the scientific bodies and the stations should be improved;
4) all the seismic work carried out by the stations and by the various institutions in the Caucasus region should be concentrated in the Institut geofiziki AN GruzSSR (Institute of Geophysics of the Georgian SSR) and the region divided into groups with one station as a centre. As an example, three groups could be formed with Makhachkala (or Kirovabad), Yerevan and Tbilisi as the central stations.
5) at least two stations in the active area of Akhalkalak

Inspection of the Seismic Stations of the Caucasus in 1957

highlands should be provided with seismographs of low sensitivity and mechanical registration;
6) modern seismographs should replace the outdated ones at Stepanavan, Goris, Zugdidi, Gegechkori, Lenkoran' and Leninakan;
7) all stations should be immediately provided with good clocks;
8) to improve the qualifications of the personnel in charge, a seminar on instrument-servicing and the technique of observations should be established at one of the central stations (e.g. Tbilisi).

Card 5/5 1. Seismological stations--Inspection 2. Seismological stations--Equipment 3. Seismological stations--Effectiveness

MONDESHKI,M.; RADANOV,R.; POPOV,Iv.; SLAVOV,G.; DOBREV,P.; PASHMAKOV,Iv.

Causes of chronic development of pulmonary tuberculosis. Suvrem. med.,Sofia 11 no.2-3:36-46 '60.

1. Iz Katedrata po ftiznatriia pri VMI - Sofiia, Rukov. na Katedrata: prof. M. Mondeshki.
(TUBERCULOSIS PULMONARY etiol.)

POPOV, I., inzh.

Results of investigations in the field of protecting navigable harbor approaches against sedimentation. Mor. flot 19 no.2:22-25 F '59. (MIRA 12:3)

1. Laboratoriya Vsesoyuznogo nauchno-issledovatel'skogo instituta gidrotekhniki imeni B.Ye. Vedeneyeva.
(Harbors) (Shore protection)

POPOV, I., kand.biolog.nauk, AFANAS'YEVA, V., mladshiy nauchnyy sotrudnik, SUKHOVA, G., mladshiy nauchnyy sotrudnik

Reusing suds in laundering. Zhil.-kom. khoz. 10 no.11:12-13 '60. (MIRA 13:11)

1. Akademiya kommunal'nogo khozyaystva (for Afanas'yeva, Sukhova). (Laundries, Public)

22(3) SOV/175-58-6-6/41

AUTHOR: Popov, I., Colonel

TITLE: Firing at the Range

PERIODICAL: Tankist, 1958, Nr 6, pp 10-14 (USSR)

ABSTRACT: The author states that firing from tanks in the field is a difficult training period. Further perfection in the training of the tank crews consists in carrying out tactical exercises. The practice firing is independently performed, by units, in conditions similar to fighting conditions. The slightest inaccuracy committed by one member of the crew affects the joint result. A crew able to estimate quickly the distance to the target can be considered a well trained one. The crew must also endeavor to hit the target using the least number of rounds. The most difficult mode of firing is firing on the move. The unstable position of the tank impedes aiming, adjustment of fire,

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Firing at the Range

observation, and increases the dispersion of shells. In the preparations for firing no undue slackness can be tolerated. It follows from the experience accumulated by Lieutenant Colonel Semenyuta and his staff, that the basic aim is the proper training of the personnel in fire practice. Prior to the firing exercises, the range must be properly prepared and sight instruments checked. For the latter operation, officer Leonov's instrument is used. The organization and the order of fire to be performed are shown in a model plan and a graph (Figure 1), drawn up by the company commander. It consists of a schedule showing organization and execution of practice firing at fixed targets to be performed by a tank company during halts of short duration. It contains the following headings: Subject, purpose, place, time and materiel supply, the firing and the

Firing at the Range

range servicing personnel schedules - in accordance with staff instructions. The paragraph "Organization of Fire" shows, in this particular case, three training grounds, and for each of them "subject, purpose, materiel supply and instructor". Finally, the schedule contains the order of fire. In conclusion the author stresses the importance of practice firing, its organization and execution. Private V.A. Skripnik (Figure 2), is an expert in combat and political training. Recently he was awarded the accolade "excellent" for his fire performance from a tank. There are 1 graph and 1 photograph.

POPOV, I., akademik, laureat Leninskoy premii

Norms of protein nutrition for milk cows need a revision. Zhivotnovodstvo 21 no.8:5-15 Ag '59. (MIRA 12:11)
(Dairy cattle--Feeding and feeding stuffs) (Proteins)

POPOV, I.

POPOV, I. Trade-union organizations should give all-out aid to the rationalizer movement. p. 3.

Vol. 5, No. 9, 1956.
LEKA PROMISHLENOST.
TECHNOLOGY
Sofiia, Bulgaria

So: East European Accession, Vol. 6, No. 3, March 1957

POPOV, I., (Kiyev).

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(Local finance) . (Kudriashov, R.) (Chudinovich, L.)

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(Ukraine--Budget)

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(Published 1955)
Sofiya, Bulgaria

SOURCE: EEAL LC Vol. 5, no. 7 July 1956

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(MIRA 12:6)

1. Nachal'nik spasatel'noy sluzhby Moskovskogo oblastnogo komiteta Dobrovol'nogo obshchestva sodeystviya armii, aviatsii i flotu.
(Floods)

COUNTRY : Bulgaria
CATEGORY : Human and Animal Physiology, Metabolism

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ABS. JOUR. : RZhBiol., No.5 1959, No. 21785

AUTHOR : Vylchanov, V.; Popov I.
INST. : Institute of Biology of the Bulgarian Acad. of Sci.
TITLE : A Photocolorimetric Study of the Capacity of the Reticuloendothelial System of Absorb Dye in a Fasting Animal.
ORIG. PUB. : Izv. In-ta biol. Bylg. AN, 1957, 8, 291--304

ABSTRACT : In order to determine the phagocytic activity of the reticuloendothelial system, trypan blue was used as a dye instead of congo red, which gives equivocal results. A prolonged fast (96 hours) produced in rabbits an appreciable delay in the serum clearance of a 1% aqueous solution of trypan blue (0.5 ml/kg) injected intravenously, an effect which demonstrates a reduction in the capacity of the reticuloendothelial system to absorb the dye. Prior data shows that vitamin C given to the fasting animal can temporarily prevent the diminution in the activity of the RE system.

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